Week 22 Bio Warmups

Match each monomer with the correct carbon compound.

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | amino acids | a. | polysaccharides |
| 2. | nucleotides | b. | polypeptides |
| 3. | monosaccharides | c. | lipids |
| 4. | fatty acids | d. | nucleic acids |

Identify the elements that make up organic compounds, and thus are found in living things.

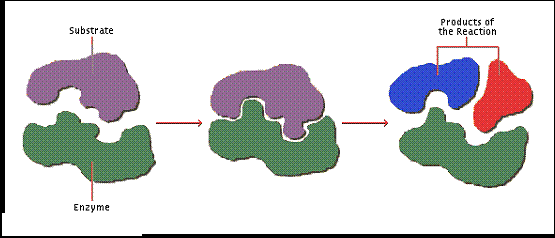
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| --- | --- | --- | --- |
| 1. | carbon | a. | Organic compound element |
| 2. | chlorine | b. | Element not found in organic compounds |
| 3. | nitrogen |  |  |
| 4. | oxygen |  |  |
| 5. | calcium |  |  |
| 6. | hydrogen |  |  |
| 7. | sulfur |  |  |

Current conditions in your laboratory setup are 40°C, with a pH of 7. For each enzyme described below, describe what you would need to do to make the enzyme activity rate increase. See the example for help.

|  |  |  |
| --- | --- | --- |
| Enzyme | Effective Temp. Range | Optimum pH |
| Example | 30-35°C | 7 |
| 1 | 60-70°C | 7 |
| 2 | 35-45°C | 2 |
| 3 | 50-60°C | 10 |

For the example enzyme, you would need to decrease the temperature in the lab.

Lipid Fatty Acids



Enzyme

What would happen if this enzyme was overheated?

1. Lipids would be broken down into fatty acids more quickly.
2. Lipids would be broken down into fatty acids more slowly.
3. Fatty acids would be joined to make lipids more quickly.
4. Fatty acids would be joined to make lipids more slowly.

Explain why overheating the enzyme would cause this to happen.

Match each function with the correct carbon compound.

|  |  |  |  |
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| 1. | act as catalysts to control reaction rates | a. | carbohydrates |
| 2. | make up waterproof coverings | b. | proteins |
| 3. | provide structure and support for plants (i.e. cellulose) | c. | lipids |
| 4. | help keep body healthy (i.e. antibodies) | d. | nucleic acids |
| 5. | pass on genetic information |  |  |
| 6. | body’s primary source of energy |  |  |
| 7. | form bones and muscles |  |  |
| 8. | store energy for future use |  |  |